

245 CLAIM 1: A less lethal projectile to be fired from a launcher comprising, a body
having a concentric cavity to hold a fluid payload, a nose cap attached to the body,
said nose cap having a plurality of slits therein, which will open upon impact,
allowing the fluid to escape.

250 CLAIM 2: The projectile of Claim 1 further comprising a frangible disk to seal the
fluid in the cavity in the body, said frangible disk rupturing at impact allowing the fluid
to escape.

CLAIM 3: The projectile of Claim 1 in which the nose cap is made of plastic.

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CLAIM 4: The projectile of Claim 1 in which the nose cap comprises an inner hard
nose cap covered by an outer soft nose cap.

CLAIM 5: The projectile of Claim 2 in which the frangible disk has a cylindrical
260 projection which projects into the fluid, to provide an expansion volume for the fluid.

CLAIM 6: The projectile of Claims 2 or 5 in which the frangible disk has a circular
groove cut therein to provide a weakened point of rupture.

265 CLAIM 7: The projectile of Claim 1 in which the fluid has a density of about 2.

CLAIM 8: The projectile of Claim 7 in which the fluid comprises a mixture of glycerine and a heavy inorganic material.

270 CLAIM 9: The projectile of Claim 4 in which the inner cap and the outer cap have matching collinear slits.

CLAIM 10: The projectile of Claims 3 or 4 in which the nose cap or caps have a rounded front surface.

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CLAIM 11: The projectile of Claim 1 further comprising a limiting column contained in the body and a second limiting column contained in the cap, said first and second limiting columns adapted to strike each other at impact, thereby limiting further movement of the cap.

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CLAIM 12: The projectile of Claim 4 in which the nose cap is smaller in diameter than the body.

CLAIM 13: The projectile of Claim 1 in which the fluid comprises a marking dye, an
285 irritant or a mixture thereof.

CLAIM 14: A less lethal projectile to be fired from a launcher comprising a body

290 having a concentric cavity to hold a fluid payload, a nose cap attached to the body
said nose cap having a plurality of slits therein which will spread open upon impact,
a frangible disk to seal the fluid in the cavity in the body, said frangible disk rupturing
at impact allowing the fluid to pass into the cap and escape through the slits in the
cap.

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CLAIM 15: The projectile of Claim 14 in which the nose cap is made of plastic.

CLAIM 16: The projectile of Claim 14 in which the nose cap comprises an inner
hard nose cap covered by an outer soft nose cap.

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CLAIM 17: The projectile of Claim 14 in which the frangible disk has a cylindrical
projection which projects into the fluid, to provide an expansion volume for the fluid.

CLAIM 18: The projectile of Claims 14 in which the frangible disk has a circular

305 groove cut therein to provide a weakened point of rupture.

CLAIM 19: The projectile of Claim 14 in which the fluid has a density of about 2.

CLAIM 20: The projectile of Claim 19 in which the fluid comprises a mixture of

310 glycerine and a heavy inorganic material.

CLAIM 21: The projectile of Claim 16 in which the inner cap and the outer cap have matching collinear slits.

CLAIM 22: The projectile of Claim 14 in which the nose cap or caps have a rounded
315 front surface.

CLAIM 23: The projectile of Claim 14 further comprising a limiting column contained in the body and a second limiting column contained in the cap, said first and second limiting columns adapted to strike each other at impact, thereby limiting further
320 movement of the cap.

CLAIM 24: The projectile of Claim 14 in which the nose cap is smaller in diameter than the body.

325 CLAIM 25: The projectile of Claim 14 in which the fluid comprises a marking dye, an irritant or a mixture thereof.

CLAIM 26: A less lethal projectile to be fired from a launcher comprising a body having a concentric cavity to hold a fluid payload, a nose cap attached to the body, said nose cap having a plurality of slits therein which will spread open upon impact,
330 a cardboard frangible disk to seal the fluid in the cavity in the body, said cardboard frangible disk resting against a washer for support, said cardboard frangible disk

rupturing at impact allowing the fluid to pass into the cap and escape through the slits in the cap.

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CLAIM 27: The projectile of Claim 26 in which the cardboard frangible disk has a polymer coat layer facing the fluid payload.

CLAIM 28: The projectile of Claims 26 or 27 is which said cardboard frangible disk
340 has a concave shape facing the supporting washer.

CLAIM 29: The projectile of Claims 1, 14 or 26 in which the frangible disk is tightly held between a shoulder in the body and a shoulder in the cap.

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